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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,378	03/26/2004	Kazuhito Kishi	250938US2	7634

22850 7590 06/28/2005

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EXAMINER

LEE, PETER

ART UNIT PAPER NUMBER

2852

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/809,378

Applicant(s)

KISHI ET AL.

Examiner

Peter Lee

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 7, 9, 10, 11, 12, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita et al. (US 2002/0043523) in view of Inuyama et al. (JP 63210979).

Fujita teaches an image-forming apparatus, comprising: a fixing device (fig. 11; note: page 6 paragraph [0086]) (ie. fixing unit), the fixing device including: a heat roller (fig. 11 part 2) (ie. heating part) including heating elements (fig. 11 part 2a and 2b) (ie. heating element, additional heating elements); an electric double layer capacitor as a large capacity storage for auxiliary power supply (fig. 1 part 4) (ie. power storage unit being a chargeable and dischargeable capacitor; charger) having a capacity of around 2000 F (p. 3 paragraph [0067]) (ie. capacitance greater than 80 F, capacitance greater than 2000 F); configured to supply power to the heating roller (fig. 19 part 4) so that the heating element of the heater generates heat, the power storage unit includes a CPU (fig. 19 part 13) (ie. controller/control means) configured to control an operation of the storage unit (fig. 15 part 17 note: page 6 paragraph [0095]), the controller performs control such that the capacitor is charged in accordance with a remaining amount of stored energy thereof (note: page 4 paragraph [0071]). The image forming apparatus is also taught to have a main power source (part 3) (ie. power supply unit), and a switch (fig. 1

Art Unit: 2852

part 7) through which a power is supplied from the auxiliary power supply (part 4) to the heating roller (part 2).

Fujita also teaches that after the warm up/stand by state is up (ie. after the stopped image forming operation) the surface temperature of the heat roller is determined to be at the pre-selected temperature by the CPU (page 6 paragraph [0098]) (ie. controller performs the control such that the capacitor is charged until a voltage of the capacitor is higher than or equal to a predetermined voltage) and the capacitor storage (fig. 15 part 17) is switched off of the second heating element by the CPU to allow for normal fixing operations at the fixing temperature acquired (page 6 paragraph [0098]) (ie. allows returning to the image forming operation).

The capacitor taught by Fujita (part 17b)

Fujita does not teach the practice of continuing to charge the capacitor even in a state when image forming operations is suspended due to abnormalities.

It is Inuyama who teaches the practice of charging a capacitor during the case when the door to a fixing heater is open (ie abnormal condition; it is interpreted that the reason for opening includes the possibility due to a jam sheet).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the controlling unit taught by Fujita to continue the charging operation of the capacitor during the event of an abnormality as taught by Inuyama. One of ordinary skill would have been motivated to do so because storing of a charge on a capacitor in the event of a fault such as a fixing heater door open will allow the user to keep monitor of the fixing device (abstract translation; constitution: 1st sentence).

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 4-6, 8, 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujita et al. (US 2002/0043523).

Fujita teaches an image-forming apparatus, comprising: a fixing device (fig. 11; note: page 6 paragraph [0086]) (ie. fixing unit), the fixing device including: a heat roller (fig. 11 part 2) (ie. heating part) including heating elements (fig. 11 part 2a and 2b) (ie. heating element, additional heating elements); an electric double layer capacitor as a large capacity storage for auxiliary power supply (fig. 1 part 4) (ie. power storage unit being a chargeable and dischargeable capacitor; charger) having a capacity of around 2000 F (p. 3 paragraph [0067]) (ie. capacitance greater than 80 F, capacitance greater than 2000 F); configured to supply power to the heating roller (fig. 19 part 4) so that the heating element of the heater generates heat, the power storage unit includes a CPU (fig. 19 part 13) (ie. controller/control means) configured to control an operation of the storage unit (fig. 15 part 17 note: page 6 paragraph [0095]), the controller performs control such that the capacitor is charged in accordance with a remaining amount of stored energy thereof (note: page 4 paragraph [0071]). The CPU is also taught to have a potential sensor (part 24) that is capable of sensing an amount of voltage potential remaining in a capacitor (paragraph [0199]).

Fujita also teaches that after the warm up/stand by state is up (ie. after the stopped image forming operation) the surface temperature of the heat roller is determined to be at the pre-selected temperature by the CPU (page 6 paragraph [0098]) (ie. controller performs the control such that the capacitor is charged until a voltage of the capacitor is higher than or equal to a

Art Unit: 2852

predetermined voltage) and the capacitor storage (fig. 15 part 17) is switched off of the second heating element by the CPU to allow for normal fixing operations at the fixing temperature acquired (page 6 paragraph [0098]) (ie. allows returning to the image forming operation).

Conclusion

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Response to Arguments

3. Applicant's arguments filed April 13, 2005 have been fully considered but they are not persuasive. Applicant argues on p. 8 and p. 9 of the response that the prior art reference of Fujita et al. (US 20020043523) in view of Inuyama et al. (JP 63210979) does not teach the charging up of a capacitor in accordance with a remaining amount of energy stored. Examiner has rewrote the

Art Unit: 2852

above action to better explain the prior art of Fujita et al. in view of Inuyama et al. Examiner has further pointed out in the Fujita reference, on p. 4 paragraph [0071] it is taught that the capacitor serves as an auxiliary power source that is capable of being charged by a main power source (part 3) in order to charge the heating roller when it is detected to need more power.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation for combining the teachings of Inuyama et al. is because storing of a charge on a capacitor in the event of a fault such as a fixing heater door open will allow the user to keep monitor of the fixing device (abstract translation; constitution: 1st sentence).

In response to the applicant's arguments on p. 11 of the response pertaining to the prior art of Fujita (US 20020043523) not teaching the charging of a capacitor in accordance with the remaining amount of energy stored, Examiner has written the action above to better explain. However, it remains the position of the Examiner that a case of "no charge left" in a voltage storage unit such as the capacitor taught by Fujita is in fact a measurement of the "remaining amount of energy stored within" the capacitor.

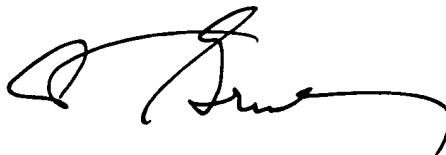
Art Unit: 2852

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Lee whose telephone number is 571-272-2846. The examiner can normally be reached on mon-fri 9:00 am-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on 571-272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PL 6/26/05



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